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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/699,730	11/04/2003	Rong-Ho Lee	3313-1052P	6431
2292	7590	08/10/2005	EXAMINER	
BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			HODGES, MATTHEW P	
			ART UNIT	PAPER NUMBER
			2879	

DATE MAILED: 08/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/699,730	LEE ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Matt P. Hodges	2879	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 04 November 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 11 and 12 is/are allowed.
- 6) ☒ Claim(s) 1-10 and 15-18 is/are rejected.
- 7) ☒ Claim(s) 13 and 14 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 11/4/2003.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Claim Objections***

Claims 9, 10, 13, 14, 17, and 18 are objected to because of the following informalities:

Regarding claims 9, 10, 13, 14, 17, and 18, the term inorganic or organic solar appears to be missing the word "cell" as included in the claims 5 and 6. For the purposes of examination it is assumed that the word "cell" should be included at the end of the claims listed above.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 15 recites the limitation "the opaque insulating layer" in line 5. There is insufficient antecedent basis for this limitation in the claim. For the purposes of examination it is assumed that the applicant intended to write "... a least one organic electroluminescent device formed on a second surface of the common substrate opposite to the first surface..." The claims will be examined with this language.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1 and 5 are rejected under 35 U.S.C. 102(b) as being anticipated by Thagard et al. (US 6,356,031).

Regarding claim 1, Thagard discloses (see figure 1) a self-charging organic EL display module including a first substrate (12), a solar cell (14, 16, and 18) formed on the first substrate, a second substrate (28), and an organic EL device (22, 24, and 26) formed on the second substrate. The unit is packaged together and the solar cell powers the EL device.

Regarding claim 5, Thagard further discloses the solar cell being inorganic. (Column 1 lines 52-58).

Claims 7 and 10 are rejected under 35 U.S.C. 102(e) as being anticipated by Lee et al. (US 2004/0119401 A1).

Regarding claim 7, Lee discloses (see figure 1) a self-charging organic EL display module including a first substrate (100), a solar cell (132) formed on the first substrate, and an organic EL device (130) formed on the first substrate away from the solar cell. The unit is packaged together and the solar cell powers the EL device. (Paragraphs 0015-0016).

Regarding claim 10, Lee further discloses the solar cell being organic. (Paragraph 0010).

Claims 1, 5, 6, 15, 17 and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Minamitani et al. (JP 408054479A).

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Regarding claim 15, Minamitani discloses (see figure 1) a self-charging organic EL display module including a first substrate (13), a solar cell (14) formed on the first substrate, and an organic EL device (15) formed on the first substrate on an opposite side from the solar cell. The unit is packaged together and the solar cell powers the EL device.

Regarding claims 17 and 18, Minamitani further discloses the solar cell being either organic or inorganic. (Paragraphs 0010, 0013, and 0017).

Regarding claims 1, 5, and 6, Minamitani alternatively discloses (see figure 1 and 2) a self-charging organic EL display module including a first substrate (13), a solar cell (14) formed on the first substrate, and an organic EL device (15), which further consist of a second substrate 41 formed on the first substrate on an opposite side from the solar cell. The unit is packaged together and the solar cell powers the EL device

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thagard et al. (US 6,356,031) in view of Frischknecht. (US 2004/0135268 A1).

Regarding claims 2 and 3, Thagard discloses the device as claimed (see rejection of claim 1 above) but does not appear to specify the use adhesive between the first and second substrates. However Frischknecht, in the same field of endeavor, discloses the use of a packaging adhesive

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to attach a first and second substrate around organic elements. The use packaging adhesive at either end of the device substrate advantageously prevents moisture and oxygen from permeating the elements and decreasing the lifespan of the device. Further the use of a packaging adhesive allows for easy placement and faster manufacture of the device. Thus, it would have been obvious at the time the invention was made to a person having ordinary skills in the art to incorporate the use packaging adhesive between the first and second substrates as taught by Frischknecht, into the device as taught by Thagard in order to advantageously prevent moisture and oxygen from permeating the elements and decreasing the lifespan of the device.

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Thagard et al. (US 6,356,031) in view of Hashimoto (US 4,963,196).

Regarding claim 6, Thagard discloses the device as claimed (see rejection of claim 1 above) but does not appear to specify the use of an organic solar cell. However Hashimoto, in the same field of endeavor, discloses the use of organic solar cells instead of inorganic solar cells to decrease production cost. (Column 1 lines 16-22). Thus, it would have been obvious at the time the invention was made to a person having ordinary skills in the art to incorporate the organic solar cell as taught by Hashimoto, into the device as taught by Thagard in order to advantageously decrease production cost.

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al. (US 2004/0119401 A1) in view of Frischknecht. (US 2004/0135268 A1).

Regarding claim 8, Lee discloses the device as claimed (see rejection of claim 7 above) but does not appear to specify the use of an encapsulating layer surrounding the organic elements. However Frischknecht, in the same field of endeavor, discloses the use of an encapsulating layer surrounding the organic elements. The encapsulating layer is formed from a cover layer attached to the device substrate by packaging adhesive at either end of the device substrate. Encapsulating organic elements advantageously prevents moisture and oxygen from permeating the elements and decreasing the lifespan of the device. Thus, it would have been obvious at the time the invention was made to a person having ordinary skills in the art to incorporate the use of an encapsulating layer surrounding the organic elements as taught by Frischknecht, into the device as taught by Lee in order to advantageously prevent moisture and oxygen from permeating the elements and decreasing the lifespan of the device.

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al. (US 2004/0119401 A1) in view of Kondo et al. (US 5,828,117).

Regarding claim 9, Lee discloses the device as claimed (see rejection of claim 7 above) but does not appear to specify the use of an inorganic solar cell. However Kondo, in the same field of endeavor, discloses the use of inorganic solar cells. Inorganic solar cells advantageously allow for greater resistance to moisture and oxygen than organic solar cells thus leading to a higher life span. Thus, it would have been obvious at the time the invention was made to a person having ordinary skills in the art to incorporate the organic solar cell as taught by Kondo, into the device as taught by Lee in order to advantageously allow for greater resistance to moisture and oxygen than organic solar cells thus leading to a higher life span.

Claims 2-4 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Minamitani et al. (JP 408054479A) in view of Frischknecht. (US 2004/0135268 A1).

Regarding claims 2-4 and 16, Minamitani discloses the device as claimed (see rejection of claims 1 and 15 above) but does not appear to specify the use of encapsulating layers surrounding the organic elements. However Frischknecht, in the same field of endeavor, discloses the use of encapsulating layers surrounding organic elements. The encapsulating layers are formed from a cover layer attached to the device substrate by packaging adhesive at either end of the device substrate. Encapsulating organic elements advantageously prevents moisture and oxygen from permeating the elements and decreasing the lifespan of the device. Thus, it would have been obvious at the time the invention was made to a person having ordinary skills in the art to incorporate the use of encapsulating layers surrounding the organic elements as taught by Frischknecht, into the device as taught by Minamitani in order to advantageously prevent moisture and oxygen from permeating the elements and decreasing the lifespan of the device.

***Allowable Subject Matter***

Claims 11 and 12 allowed.

Claims 13 and 14 objected to as indicated in the claim objections above.

The following is a statement of reasons for the indication of allowable subject matter:

Regarding claim 11, the references of the Prior Art of record fails to teach or suggest the combination of the limitations as set forth in claim 11, and specifically comprising the limitation



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of a self charging organic EL device where a solar cell and EL element are formed on a common substrate with an opaque insulating layer formed between.

Regarding claims 12-14, claims 12-14 are allowable for the reasons given in claim 11 because of their dependency status from claim 11.

***Contact Information***

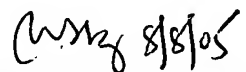
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matt P Hodges whose telephone number is (571) 272-2454. The examiner can normally be reached on 7:30 AM to 4:00 PM M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel can be reached on (571) 272-2457. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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**MARICELI SANTIAGO**  
**PRIMARY EXAMINER**